SEQUENCE LISTING

<110> Hadlaczky, Gyula

<120> ARTIFICIAL CHROMOSOMES, USES THEREOF AND METHODS FOR PREPARING ARTIFICIAL CHROMOSOMES

<130> 24601-402P

<140> Not yet assigned
<141> Herewith

<150> US/09/724,693
<151> 2000-11-28

<150> US/08/835,682
<151> 1997-04-10

<150> US/08/695,191
<151> 1996-08-07

<150> US/08/682,080
<151> 1996-07-15

<150> US/08/629,822
<151> 1996-04-10

<160> 34

<170> FastSEQ for Windows Version 4.0

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<211> 1044
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<213> Homo sapiens

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<213> Homo sapiens

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<223> pS12 forward primer

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<210> 5
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> pS12 reverse primer

<400> 5
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<210> 6
<211> 47
<212> DNA
<213> Artificial Sequence

<220>
<223> Anti-HIV-1 ribozyme

<400> 6
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<210> 7
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Sense oligonucleotide

<400> 7
cgatttaaat taattaagcc cgggc 25

<210> 8
<211> 27
<212> DNA
<213> Artificial Sequence

<220>

<223> Antisense oligonucleotide

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<210> 9
<211> 69
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<213> Artificial Sequence

<220>
<223> IL-2 signal sequence

<221> CDS
<222> (1)...(69)

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gtc aca aac agt gca cct act 69
Val Thr Asn Ser Ala Pro Thr
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<210> 10
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<212> DNA
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<220>
<223> *R. Reinformis* Luciferase

<221> CDS
<222> (1)...(945)

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 1 5 10 15

atg ata act ggt ccg cag tgg tgg gcc aga tgt aaa caa atg aat gtt 96
Met Ile Thr Gly Pro Gln Trp Trp Ala Arg Cys Lys Gln Met Asn Val
 20 25 30

ctt gat tca ttt att aat tat tat gat tca gaa aaa cat gca gaa aat 144
Leu Asp Ser Phe Ile Asn Tyr Tyr Asp Ser Glu Lys His Ala Glu Asn
 35 40 45

gct gtt att ttt tta cat ggt aac gcg gcc tct tct tat tta tgg cga 192
Ala Val Ile Phe Leu His Gly Asn Ala Ala Ser Ser Tyr Leu Trp Arg
 50 55 60

cat gtt gtg cca cat att gag cca gta gcg cgg tgt att ata cca gat 240
His Val Val Pro His Ile Glu Pro Val Ala Arg Cys Ile Ile Pro Asp
 65 70 75 80

ctt att ggt atg ggc aaa tca ggc aaa tct ggt aat ggt tct tat agg 288
Leu Ile Gly Met Gly Lys Ser Gly Lys Ser Gly Asn Gly Ser Tyr Arg
 85 90 95

tta ctt gat cat tac aaa tat ctt act gca tgg ttg aac ttc tta att 336
Leu Leu Asp His Tyr Lys Tyr Leu Thr Ala Trp Leu Asn Phe Leu Ile
 100 105 110

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Tyr Gln Arg Arg Ser Phe Phe Val Gly His Asp Trp Gly Ala Cys Leu
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gca ttt cat tat agc tat gag cat caa gat aag atc aaa gca ata gtt   432
Ala Phe His Tyr Ser Tyr Glu His Gln Asp Lys Ile Lys Ala Ile Val
    130                 135                 140

cac gct gaa agt gta gta gat gtg att gaa tca tgg gat gaa tgg cct   480
His Ala Glu Ser Val Val Asp Val Ile Glu Ser Trp Asp Glu Trp Pro
145                 150                 155                 160

gat att gaa gaa gat att gcg ttg atc aaa tct gaa gaa gga gaa aaa   528
Asp Ile Glu Glu Asp Ile Ala Leu Ile Lys Ser Glu Glu Gly Glu Lys
                165                 170                 175

atg gtt ttg gag aat aac ttc ttc gtg gaa acc atg ttg cca tca aaa   576
Met Val Leu Glu Asn Asn Phe Phe Val Glu Thr Met Leu Pro Ser Lys
            180                 185                 190

atc atg aga aag tta gaa cca gaa gaa ttt gca gca tat ctt gaa cca   624
Ile Met Arg Lys Leu Glu Pro Glu Glu Phe Ala Ala Tyr Leu Glu Pro
        195                 200                 205

ttc aaa gag aaa ggt gaa gtt cgt cgt cca aca tta tca tgg cct cgt   672
Phe Lys Glu Lys Gly Glu Val Arg Arg Pro Thr Leu Ser Trp Pro Arg
    210                 215                 220

gaa atc ccg tta gta aaa ggt ggt aaa cct gac gtt gta caa att gtt   720
Glu Ile Pro Leu Val Lys Gly Gly Lys Pro Asp Val Val Gln Ile Val
225                 230                 235                 240

agg aat tat aat gct tat cta cgt gca agt gat gat tta cca aaa atg   768
Arg Asn Tyr Asn Ala Tyr Leu Arg Ala Ser Asp Asp Leu Pro Lys Met
                245                 250                 255

ttt att gaa tcg gat cca gga ttc ttt tcc aat gct att gtt gaa ggc   816
Phe Ile Glu Ser Asp Pro Gly Phe Phe Ser Asn Ala Ile Val Glu Gly
            260                 265                 270

gcc aag aag ttt cct aat act gaa ttt gtc aaa gta aaa ggt ctt cat   864
Ala Lys Lys Phe Pro Asn Thr Glu Phe Val Lys Val Lys Gly Leu His
        275                 280                 285

ttt tcg caa gaa gat gca cct gat gaa atg gga aaa tat atc aaa tcg   912
Phe Ser Gln Glu Asp Ala Pro Asp Glu Met Gly Lys Tyr Ile Lys Ser
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ttc gtt gag cga gtt ctc aaa aat gaa caa taa                      945
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<213> Artificial Sequence

<220>
<223> Forward primer

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<210> 12
<211> 30
<212> DNA
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<220>
<223> Reverse primer

<400> 12
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<210> 13
<211> 1434
<212> DNA
<213> Artificial Sequence

<220>
<223> Amplification product

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<212> DNA
<213> Artificial Sequence

<220>
<223> Amplification product

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<212> DNA
<213> Artificial Sequence

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<223> Amplification product

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<212> DNA
<213> Mus musculus

<300>
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<309> 1996-04-09

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cgggtctccc aacccccggc cggaagggtt cgggggttcc ggg 463

<210> 21
<211> 378
<212> DNA
<213> Artificial Sequence

<220>
<223> Targeting sequence

<400> 21
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cggcgacgac ccattcgaac gtctgcccta tcaactttcg atggtagtcg atgtgcctac 180
catggtgacc acgggtgacg gggaatcagg gttcgattcc ggagagggag cctgagaaac 240
ggctaccaca tccaaggaag gcagcaggcg cgcaaattac ccactcccga cccggggagg 300
tagtgacgaa aaataacaat acaggactct ttcgaggccc tgtaattgga atgagtccac 360
tttaaatcct ttaagcag 378

<210> 22
<211> 378
<212> DNA
<213> Artificial Sequence

<220>
<223> Targeting sequence

<400> 22
gatccattgg agggcaagtc tggtgccagc agccgcggta attccagctc caatagcgta 60
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gccgcgaggc gagtcaccgc ccgtccccgc cccttgcctc tcggcgcccc ctcgatgctc 180
ttagctgagt tgtcccgcgg ggcccgaagc gtttactttg aaaaaattag agttgtttca 240
aagcaggccc gagccgcctg gataccgcca gctaggaaat aatggaatag gaccgcggtt 300
cctattttgt ttggttttcg gaactgagcc catgattaag ggaaacggcc gggggcattc 360
ccttattgcg cccccta 378

<210> 23
<211> 719
<212> DNA
<213> Artificial Sequence

<220>
<223> Targeting sequence

<400> 23
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gccgcgaccg gctacgagac ggctgggaag gcccgacggg gaatgtggct cggggggggc 240
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gacccgtctt gaaacacgga ccaaggagtc taacgcgtgc gcgagtcagg ggctcgcacg 660
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<210> 24
<211> 685
<212> DNA
<213> Artificial Sequence

<220>
<223> Targeting sequence

<400> 24
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cgaagccaga ggaaactctg gtggaggtcc gtagcggtcc tgacgtgcaa atcggtcgtc 180
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cggaatggat taggaggtct tggggccgga aacgatctca aactatttct caaactttaa 360
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ccgatgccga cgctcatcag accccagaaa aggtgttggt tgatatagac agcaggacgg 540
tggccatgga agtcggaatc cgctaaggag tgtgtaacaa ctcacctgcc gaatcaacta 600
gccctgaaaa tggatggcgc tggagcgtcg ggcccatacc cggccgtcgc cggcagtcgg 660
aacgggacgg gacgggagcg gccgc 685

<210> 25
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Amplification control element forward primer

<400> 25

gaggaattcc cctatcccta atccagattg gtg 33

<210> 26
<211> 35
<212> DNA
<213> Artificial Sequence

<220>
<223> Amplification control element reverse primer

<400> 26
aaactgcagg ccgagccacc tctcttctgt gtttg 35

<210> 27
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Origin of replication forward primer

<400> 27
aggaattcac agaagagagg tggctcggcc tgc 33

<210> 28
<211> 34
<212> DNA
<213> Artificial Sequence

<220>
<223> Origin of replication reverse primer

<400> 28
agcctgcagg aagtcatacc tggggaggtg gccc 34

<210> 29
<211> 80
<212> DNA
<213> Artificial Sequence

<220>
<223> Oligonucleotide

<400> 29
aaactgcagg ttaattaacc ctaaccctaa ccctaaccct aaccctaacc ctaaccctaa 60
ccctaaccct aacccgggat 80

<210> 30
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Oligonucleotide

<400> 30
ttgggcccta ggcttaagg 19

<210> 31
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Sequencing primer

<400> 31
gccagggttt tcccagtcac gacgt 25

<210> 32
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> M13 forward primer

<400> 32
gctgcaaggc gattaagttg ggtaac 26

<210> 33
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> M13 reverse primer

<400> 33
tatgttgtgt ggaattgtga gcggat 26

<210> 34
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Oligonucleotide

<400> 34
gggtttaaac agatctctgc a 21